

Test Yourself Chapter 14 The language of chance

Name: _____

All Multiple Choice

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| <p>1 The term which most closely represents a $\frac{7}{8}$ chance of something happening is: B</p> <p>A certain</p> <p>B highly likely</p> <p>C fair chance</p> <p>D unlikely.</p>
<p>2 A page out of a book is opened and a pin is put in the page and the letter closest to the pin is noted. The probability that the letter chosen is Z can best be described as: A</p> <p>A unlikely</p> <p>B fifty-fifty</p> <p>C probable</p> <p>D certain.</p>
<p>3 The probability that the maximum temperature on a December day will be greater than 20 °C can best be described as: C</p> <p>A unlikely</p> <p>B fifty-fifty</p> <p>C probable</p> <p>D certain.</p>
<p>4 Which of the following events would be most likely to occur? A</p> <p>A There being at least one hot day next January.</p> <p>B Catching a green light at a set of traffic lights.</p> <p>C The Dragons winning the NRL grand final next season.</p> <p>D Winning the lottery.</p> | <p>5 Which of the following events would be least likely to occur? D</p> <p>A There being at least one hot day next January.</p> <p>B Catching a green light at a set of traffic lights.</p> <p>C The Dragons winning the NRL grand final next season.</p> <p>D Winning the lottery.</p>
<p>6 The number of possible results for selecting a student from a class of 12 boys and 15 girls is: D</p> <p>A 1</p> <p>B 12</p> <p>C 15</p> <p>D 27</p>
<p>7 The sample space for spinning a spinner that is divided into four equal parts of red, white, blue and black is: B</p> <p>A {4}</p> <p>B {red, white, blue, black}</p> <p>C {red, white}</p> <p>D {blue, black}.</p>
<p>8 When a die is rolled, the number of elements in the sample space is: B</p> <p>A {1, 2, 3, 4, 5, 6}</p> <p>B 6</p> <p>C 1</p> <p>D unknown.</p> |
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- 9** A bag contains 3 red, 5 yellow and 2 green marbles. The number of different elements in the sample space is: **B**
- A 1
B 3
C 10
D {red, yellow, green}.
- 10** A tree diagram is drawn to show the sample space when three coins are tossed simultaneously. The number of elements in the sample space is: **C**
- A 3
B 6
C 8
D 12
- A two-digit number is formed using the digits 2, 4, 5, and 6 such that no digit may be repeated.
- Draw a tree diagram representing the above situation and use the tree diagram to answer questions **11** and **12**.
- 11** The number of elements in the sample space is: **C**
- A 4
B 8
C 12
D 16
- 12** The number of odd numbers that can be formed is: **A**
- A 3
B 4
C 6
D 8
- 13** Kate, Trevor, Jenny, Aliesha and Fiona sit on a committee. A President and Treasurer need to be selected. Use a tree diagram to find the number of ways in which these positions can be filled. The answer is: **C**
- A 5
B 10
C 20
D 25
- 14** For which of the following probability experiments would each possible outcome be equally likely to occur? **A**
- A To find the probability of winning a lottery.
B To find the probability of fine weather.
C To find the probability of purchasing faulty equipment.
D To find the probability of a train running on time.
- 15** For which of the following probability experiments would each possible outcome NOT be equally likely to occur? **A**
- A To find the probability of an accident occurring at a particular intersection.
B To find the probability of two people having a birthday on the same day.
C To find the probability of selecting four aces from a deck of playing cards.
D To find the probability of ten coins all landing Heads.
- 16** A bag contains 4 blue, 6 green and 10 white balls. To win a game, Mary must randomly select a blue ball from the bag. The complementary event to this is: **C**
- A selecting a green ball
B selecting a white ball
C selecting a green or white ball
D selecting a ball of any colour.
- 17** Two coins are tossed and both coins land Heads. Which of the following is the complementary event of both coins landing Heads? **A**
- A At least one coin lands Tails.
B Both coins land Tails.
C At least one coin lands Heads.
D Neither coin lands Heads.

- 18** In soccer, the complementary event to winning the match would be: **D**
- A losing the match
 - B drawing the match
 - C winning another match
 - D not winning the match.
- 19** The weather bureau forecasts the chance of rain for the next day as 30%. The probability of it not raining the next day is: **B**
- A $\frac{1}{3}$
 - B $\frac{7}{10}$
 - C $\frac{2}{3}$
 - D $\frac{3}{10}$
- 20** A set of cards is numbered {1, 2, 3, 4 ...19, 20}. A card is selected at random. The probability of selecting a card that is not a multiple of 3 is: **B**
- A $\frac{17}{20}$
 - B $\frac{7}{10}$
 - C $\frac{3}{10}$
 - D $\frac{3}{20}$